TOWN OF LOOMIS

SUMMARY OF GOALS AND STRATEGIES

GOAL 1: INCREASE ENERGY EFFICIENCY IN EXISTING STRUCTURES

- **Strategy 1.1**: Expand outreach and education to increase participation in voluntary home energy-efficiency programs.
- **Strategy 1.2**: Expand outreach and education to increase participation in voluntary non-residential energy-efficiency programs.
- **Strategy 1.3**: Identify and promote programs that help finance energy efficiency and renewable energy projects.

GOAL 2: INCREASE THE ENERGY PERFORMANCE OF NEW CONSTRUCTION

- **Strategy 2.1**: Improve compliance with Title 24 Green Building and Energy Standards.
- **Strategy 2.2**: Provide incentives for buildings to exceed the current Title-24 energy standards.
- **Strategy 2.3**: Reduce the heat island effect and related summer heat gain in residential and non-residential projects.

GOAL 3: INCREASE RENEWABLE ENERGY USE

- **Strategy 3.1**: Evaluate the Town's residential, non-residential and municipal solar potential and assess barriers to increased solar energy use.
- **Strategy 3.2**: Develop a comprehensive renewable energy program that provides outreach, financing, and technical assistance.
- **Strategy 3.3**: Encourage new development projects to meet 70% of their energy needs from renewable resources.

GOAL 4: INCREASE ENERGY EFFICIENCY IN MUNICIPAL STRUCTURES AND OPERATIONS

- **Strategy 4.1**: Improve energy efficiency of existing municipal structures.
- **Strategy 4.2**: Evaluate feasibility of improving energy efficiency of traffic signals and public lighting.

GOAL 5: INCREASE COMMUNITY WATER CONSERVATION AND EFFICIENCY TO REDUCE ASSOCIATED ENERGY USE

- **Strategy 5.1**: Encourage residents and businesses to conserve water used indoors.
- **Strategy 5.2**: Encourage residents and businesses to conserve water used outdoors.

GOAL 1: INCREASE ENERGY EFFICIENCY IN EXISTING STRUCTURES

Approximately 45% of the housing stock in Loomis was built prior to the adoption of California's Title 24 energy standards in 1978 and the non-residential building stock is likely similarly dated. Improving the energy efficiency of existing buildings will save homeowners and businesses money by reducing their long-term energy costs. The Town will leverage existing resources to expand education and outreach programs to promote energy efficiency in existing residential and non-residential structures.

Strategy 1.1: Expand outreach and education to increase participation in voluntary home energy-efficiency programs.

Residential energy-efficiency improvements have the potential to reduce energy bills and GHG emissions. The Town will partner with Pacific Gas and Electric Company (PG&E), Placer County, Energy Upgrade California and other community organizations to leverage existing resources and expand public education and outreach campaigns that encourage residents to voluntarily make energy-efficiency improvements within their homes and to take advantage of the low-cost energy-efficiency financing programs described in Strategy 1.3 below. As part of the outreach program, the Town will include on its website information on available energy-efficiency rebates and incentive programs. The website will also link to local case studies of homes that have implemented cost effective energy-efficiency improvements when available.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Partner with PG&E and Project Go Inc. to activate programs for income-eligible Loomis residents.	Short-Term (1-2 years)	Planning & Building Departments
2	Partner with PG&E, Placer County and Energy Upgrade California to increase participation in energy efficiency rebates and incentive programs.	Short-Term (1-2 years)	Planning & Building Departments
3	Include on the Town's website information on and links to residential energy-efficiency rebates, incentives, and case studies.	Short-Term (1-2 years)	Planning & Building Departments
	PERFORMANCE INDICATOR	**TARGET**	
1	Number of households served with weatherization energy-efficiency improvements.	___ served by 2020	
2	Percentage of households participating in energy-efficiency rebate programs.	___% participating by 2020	
3	Percentage of households achieving a 15% improvement in building energy efficiency.	10% achieving 15% savings by 2020	

Annual Energy Reduction Potential:
23,910 kWh
6,600 therms

Cost to Town:
Low to Medium

Cost to Resident / Business Owner:
Low to High (depending on finance program)

Savings to Resident / Business Owner:
Low to High (depending on finance program)

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations and Town Funds

Strategy 1.2: Expand outreach and education to increase participation in voluntary non-residential energy-efficiency programs.

Investments in building energy-efficiency retrofits can save energy and reduce a business's operational costs. The greatest barriers to these improvements are lack of information about efficiency practices and scarcity of low-cost financing for the initial capital costs.

In partnership with PG&E, Placer County (MPower[1] Placer program), Sierra Business Council (SBC) and the Sierra Nevada Energy Watch program (SNEW), and local business organizations the Town will provide outreach programs aimed at maximizing voluntary energy conservation within community businesses. These programs will target specific commercial sectors such as restaurants, supermarkets, retail, office, and manufacturing to provide useful energy and cost savings recommendations. The program will encourage businesses to conduct benchmarking[2], energy audits and implement energy-efficiency projects. The Town will include on its website information on energy-reduction programs specifically for commercial and industrial businesses. Case studies of businesses that implemented cost-effective energy-efficiency improvements can be showcased on the website, focusing on those in Loomis when possible.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Partner with PG&E and SBC to expand the SNEW program in Loomis.	Short Term (1-2 years)	Planning & Building Departments Town Manager's Office
2	Provide links on the Town's website to tools that demonstrate the financial benefits of efficiency upgrades to local businesses.	Short-Term (1-2 years)	Planning & Building Departments Town Manager's Office
3	Include on the Town's website information on and links to non-residential energy-efficiency rebates, incentives, and case studies.	Short-Term (1-2 years)	Planning & Building Departments
	PERFORMANCE INDICATOR	**TARGET**	
1	Number of businesses served by SBC with energy-efficiency improvements.	___ served by 2020	
2	Percentage of businesses participating in energy-efficiency rebate programs.	___% participating by 2020	
3	Percentage of businesses achieving a 15% improvement in building energy efficiency.	10% achieving 15% savings by 2020	

Annual Energy Reduction Potential:
24,371 kWh
317 therms

Cost to Town:
Low to Medium

Cost to Resident / Business Owner:
Low to High (depending on finance program)

Savings to Resident / Business Owner:
Low to High (depending on finance program)

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations and Town Funds

[1] MPOWER (Money for Property Owner Water and Energy efficiency Retrofitting)
[2] Energy benchmarking compares a building's energy performance against that of similar buildings.

Strategy 1.3: Identify and promote programs that help finance energy efficiency and renewable energy projects.

The up-front costs of energy efficiency improvements can be a considerable barrier for many homeowners and businesses. However there are a myriad of options to address this challenge, including on-bill financing, low interest loans, energy-efficient mortgages, and the Property Assessed Clean Energy (PACE) programs.

One example, on-bill financing, works in conjunction with PG&E's energy efficiency rebate and incentive programs to eliminate upfront costs. The cost of energy-efficiency retrofits is amortized on a property's monthly energy bills. The program helps eligible customers pay for energy efficient retrofit projects with zero-interest, zero-penalty loans. Loan payments are included on the customer's monthly utility bills and are set to not exceed the energy savings (in dollars) realized from the energy-efficiency retrofit. For further information refer to this report's implementation section and appendices.

The Town will partner with PG&E, Placer County (mPower Placer program) and local banks to identify and promote existing and potential financing programs. The Town will include links to financing programs on its website.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Partner with PG&E, Placer County (mPower Placer) and local banks to promote existing financing programs.	Short Term (1-2 years)	Town Manager's Office
2	Include on the Town's website descriptions of and links to existing financing programs for energy efficiency upgrades.	Short Term (1-2 years)	Planning & Building Departments Town Manager's Office
	PERFORMANCE INDICATOR	**TARGET**	
1	N/A	N/A	

Annual Energy Reduction Potential:
Supports Strategy 1.1, 1.2

Cost to Town:
Low to Medium

Cost to Resident / Business Owner:
Low to High (depending on finance program)

Savings to Resident / Business Owner:
Low to High (depending on finance program)

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations, Local Banks and Town Funds

GOAL 2: INCREASE THE ENERGY PERFORMANCE OF NEW CONSTRUCTION

New buildings offer a significant opportunity to achieve high levels of energy efficiency through advanced materials and design. The Town will work with developers and contractors to improve compliance with existing energy and green building standards and promote measures to exceed the energy standards. The Town will also review the potential for incentives for buildings that exceed the Title 24 energy standards.

Strategy 2.1: Improve compliance with Title 24 Green Building and Energy Standards.

The 2013 revisions to the Title 24 Green Building (Part 11) and Energy Standards (Part 6) will help to make new construction significantly more energy efficient. The Energy Standards are expected to be 25% more efficient than previous standards for residential construction and 30% more efficient for non-residential construction according to the California Energy Commission.[3] The California Green Building Standards (CalGreen) include mandatory as well as voluntary green building measures that also have energy saving benefits. Assisting developers and contractors understand the standards will help them achieve higher efficiencies on their projects.

The Town will provide opportunities for building officials and planning department staff to attend Title 24 energy and green building trainings as well as promote trainings and educational materials to contractors and developers. EnergyCodeACE and PG&E offer free Title 24 Part 6 tools, trainings and resources to assist the building industry, related stakeholders and the public to comply with the 2013 Building Energy Efficiency Standards.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Provide opportunities for Town building officials and planning department staff to attend Title 24 trainings.	Short Term (1-2 years)	Building & Planning Department
2	Include links to Title 24 energy and green building trainings and educational resources on the Town's website.	Short Term (1-2 years)	Building & Planning Departments
	PERFORMANCE INDICATOR	**TARGET**	
1	Percentage of Town staff that attended Title 24 energy and green building trainings.	100% of Building & Planning staff by 2020	
2	Number of developers/contractors that attended Title 24 energy and green building trainings.	___ of developers/contractors by 2020	

[3] http://www.energy.ca.gov/releases/2012_releases/2012-05-31_energy_commission_approves_more_efficient_buildings_nr.html

Annual Energy Reduction Potential:
163,339 kWh
1,703 therms

Cost to Town:
Low

Cost to Resident / Business Owner:
None

Savings to Resident / Business Owner:
High

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations and Town Funds

Strategy 2.2: Provide incentives for buildings to exceed the current Title 24 energy standards.

Providing incentives for energy-efficient buildings, such as expedited permit processing, encourages developers to explore incorporating energy-efficient building features into their projects, which can save the property owner money over the life of the building. Reduced permitting times can be a effective incentive because it can translate to significant savings for developers that are paying interest on construction or bridge loans during the permit approval process.

The Town will determine the feasibility of providing incentives or awards for buildings that exceed the current Title 24 energy standards. The Town will provide information to contractors and developers on available incentives and education resources related to energy efficiency and green building. The Town's website will include information on available incentives and educational resources.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Determine the feasibility of providing incentives or awards for new buildings that exceed Title 24 energy standards.	Short Term (1-2 years)	Planning & Building Departments
2	If feasible, establish expedited permit processing for projects that exceed Title 24 energy standards by 30%.	Short Term (1-2 years)	Planning & Building Departments
3	Explore incentives that encourage applicants to exceed Title 24 energy standards. Research what other jurisdictions have implemented.	Near Term (3-5 years)	Planning & Building Departments
	PERFORMANCE INDICATOR	**TARGET**	
1	Number of new residential housing units exceeding Title 24 energy standards.	15% of buildings exceeding energy standards by 30% by 2020	
2	Number of new non-residential buildings exceeding Title 24 energy standards.	15% of buildings exceeding energy standards by 30% by 2020	

Annual Energy Reduction Potential:
14,836 kWh
467 therms

Cost to Town:
Low

Cost to Resident / Business Owner:
None

Savings to Resident / Business Owner:
High

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations and Town Funds

Strategy 2.3: Reduce the heat island effect[4] and related summer heat gain in residential and non-residential projects.

Trees, shade structures, cool (high albedo / solar reflectance) paving and roofing materials reduce the amount of solar energy absorbed and therefore temperature of rooftops and parking lots. By increasing the use of shading and cool paving and roofing materials it is possible to reduce heat gain in residential buildings and commercial centers. This decrease in ambient air temperatures and reduced heat gain in warm summer months can reduce the amount of energy required for air conditioning.

Requirements could include a) tree standards for existing streets and parking lots; b) heat gain mitigation requirements for new parking lots (through the use of shade structures, trees or cool pavement, etc.); c) cool roofing requirements for new construction. Shade structures can also accommodate solar panels thus serving a dual purpose.

The Town will develop design guidelines and municipal codes to reduce cooling loads through the use of shade trees, shade structures, cool pavement and cool roofs in new construction projects.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Develop parking lot heat-gain mitigation design guidelines.	Near Term (3-5 years)	Planning & Building Departments
2	Require new development projects with parking lots with more than ___ spaces to mitigate heat gain through the use of shade trees, shade structures with or without solar arrays, or cool pavement.	Near Term (3-5 years)	Planning & Building Departments
3	Develop an ordinance requiring street trees in residential projects and include guidance on tree types, planting, and maintenance.	Near Term (3-5 years)	Planning & Public Works Departments
4	Promote the installation of solar shade structures by requiring new development projects with more than ___ spaces to obtain and submit a quote for solar shade structures with permit application.	Near Term (3-5 years)	Planning & Building Departments
	PERFORMANCE INDICATOR	**TARGET**	
	N/A	N/A	

Annual Energy Reduction Potential:
Supports Strategies 2.1, 2.2

Cost to Town:
Medium to High

Cost to Resident / Business Owner:
None

Savings to Resident / Business Owner:
Medium

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations and Town Funds

[4] Increase in ambient air temperature due to excess heat created by non-permeable surfaces (such as roofs and pavement) being exposed to high temperatures during hot sunny days.

GOAL 3: INCREASE RENEWABLE ENERGY USE

Building rooftops and parking lots provide excellent opportunities for solar energy generation. In particular, non-residential and municipal facilities tend to have large, flat roofs that are well suited for solar equipment. The Town will evaluate the local solar market potential and develop a comprehensive solar program that encourages the development of local renewable energy. Local renewable-energy projects benefit the local economy by creating local jobs and reducing energy costs.

Strategy 3.1: Evaluate the Town's residential, non-residential and municipal solar potential and assess barriers to increased solar energy use.

To facilitate installation of renewable energy systems, the Town will evaluate the solar potential within Loomis. The Town will also formulate and evaluate strategies needed to expand solar development. The Town will review the existing permitting process and identify the current barriers to solar development. A streamlined permitting process using existing best practices will be developed to further promote and expedite the installation of solar systems.

The American Solar Transformation Initiative provides no-cost planning assistance to local governments in California to develop a Solar Roadmap for their communities. The program provides participating local governments with an assessment of local solar market potential, estimated economic and environmental impacts, assessment of current solar processes and customized solar roadmaps to accelerate solar installations.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Evaluate the residential, non-residential and municipal solar potential in the community.	Short Term (1-2 years)	Planning Department
2	Review existing permitting process and identify barriers to solar development.	Short Term (1-2 years)	Planning and Building Departments
3	Develop streamlined permitting process for solar developments.	Short Term (1-2 years)	Planning and Building Departments
	PERFORMANCE INDICATOR	**TARGET**	
1	kWs of solar installed on residential structures.	3,357 kWs by 2020	
2	kWs of solar installed on non-residential structures.	1,334 kWs by 2020	

Annual Energy Reduction Potential:
569,058 kWh

Cost to Town:
Low to High

Cost to Resident / Business Owner:
None to High (depending on finance program)

Savings to Resident / Business Owner:
None to High (depending on finance program)

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
American Solar Transformation Initiative, Town Funds

Strategy 3.2: Develop a comprehensive renewable energy program that provides outreach, financing, and technical assistance.

Outreach efforts will aim to maximize community participation in renewable energy generation and emphasize energy cost savings. The program will make available, information on how home and business owners can incorporate solar hot water heaters and solar photovoltaic systems into their living and working environments. Solar water heating is a proven technology that has a short payback period, providing owners with cost savings and two to three year paybacks, when solely owner-financed.

The Town will maintain a page of their website dedicated to renewable energy programs with tools available for making informed decisions on renewable energy, financing options and the permitting process. The American Solar Transformation Initiative provides participating local governments with a jurisdiction-specific public landing page for community education, including tools to evaluate the costs of solar projects and to request and compare quotes from local and regional solar vendors.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Partner with PG&E and Placer County (mPower Placer) to provide educational materials and tools to help owners make informed decisions about the costs and benefits of renewable energy projects.	Short Term (1-2 years)	Planning & Building Departments
2	Update the Town's website with links and tools to evaluate renewable energy systems and how to request quotes from local and regional solar vendors.	Short Term (1-2 years)	Planning & Building Departments
3	Partner with PG&E, Placer County (mPower Placer) and local banks to promote available financing options.	Short Term (1-2 years)	Planning & Building Departments
	PERFORMANCE INDICATOR	**TARGET**	
	N/A	N/A	

Annual Energy Reduction Potential:
Supports Strategy 3.1

Cost to Town:
Low to Medium

Cost to Resident / Business Owner:
None

Savings to Resident / Business Owner:
None

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
American Solar Transformation Initiative, Town Funds

Strategy 3.3: Encourage new development projects to meet 70% of their energy needs from renewable resources.

Solar water heating (SWH) and photovoltaic solar systems (PV) are two proven technologies that can be used to replace traditional energy use in the built environment. Commercial-scale SWH systems are designed to provide large quantities of hot water using solar energy. A typical SWH system includes roof or wall-mounted solar collectors that work with a pump, heat exchanger, and storage tanks. SWH systems can dramatically reduce the amount of natural gas or electricity used for heating water, lowering the fossil-fuel energy use associated with water heating.

Solar PV systems have reduced in cost significantly over the last decade and will often have payback periods of 8 to 15 years. Additionally, there are new financing mechanisms; such as power purchase agreements, solar leases and Property Assessed Clean Energy financing, available where property owners can receive the benefits of solar power with little to no upfront costs. The federal renewable energy tax credit provides homeowners with a tax credit for 30% of qualified expenditures. There are incentives for non-residential buildings as well. The incentives are currently set to expire on December 31st 2016.

Streamlining the building permitting process for projects that will meet 70% of its energy needs from renewable sources will further incentivize this program.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Provide priority permitting for applications that meet 70% of energy needs from renewable sources.	Short Term (1-2 years)	Planning & Building Departments
2	Provide information to contractors and developers on the current incentives for renewable energy developments during plan review.	Short Term (1-2 years)	Planning & Building Departments
	PERFORMANCE INDICATOR	**TARGET**	
1	Percentage of new residential construction that meets 70% of energy needs with renewable energy.	15% of new construction by 2020	
2	Percentage of new non-residential construction that meets 70% of energy needs with renewable energy.	15% of new construction by 2020	

Annual Energy Reduction Potential:
34,617 kWh
1,090 therms

Cost to Town:
Low to Medium

Cost to Resident / Business Owner:
None to High (depending on finance program)

Savings to Resident / Business Owner:
None to High (depending on finance program)

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations, American Solar Transformation Initiative, Town Funds

GOAL 4: INCREASE ENERGY EFFICIENCY IN MUNICIPAL STRUCTURES AND OPERATIONS

Measures undertaken by the Town to improve energy efficiency not only reduce energy costs but also set an example for the local community and surrounding areas. The 2005 municipal operations inventory indicated that the Town consumed 148,675 kWh of electricity in municipal buildings and for public lighting. Installing Energy-Star rated equipment, lighting controls and programmable thermostats can reduce this energy use. Energy use can also be tracked by benchmarking municipal buildings with EPA's Portfolio Manager.

Strategy 4.1: Improve energy efficiency of existing municipal structures.

The Town Hall (2010) and Train Depot (2005) were retrofitted with energy efficient lighting. The Town will establish a purchasing policy that requires new electrical equipment to be Energy Star rated (or similar energy usage rating). The Town will benchmark municipal facilities using the free EPA Energy Star Portfolio Manager software to track energy use and determine the efficiency of existing facilities. The facilities with the greatest energy use or highest energy intensity will be targeted for energy audits and retro-commissioning[5] to optimize energy use and identify energy-efficiency opportunities. Energy-efficiency projects could include lighting, building envelope, HVAC and water heating upgrades, lighting and HVAC controls, Energy Star® qualified hard-wired fixtures or Advanced Lighting Packages.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Establish a purchasing requirement that all new electrical equipment be Energy Star rated when available.	Short Term (1-2 years)	Town Manager's Office
2	Benchmark municipal facilities using the EPA Energy Star Portfolio Manager.	Short Term (1-2 years)	Town Manager's Office
3	Conduct energy audit and retro-commissioning of municipal facilities.	Near Term (3-5 years)	Town Manager's Office
4	Explore options for optimizing the energy efficiency of the Town's servers.	Near Term (3-5 years)	Town Manager's Office

	PERFORMANCE INDICATOR	TARGET
1	Purchasing policy in place.	2015
2	Server optimization feasibility study complete.	2016
3	Benchmark municipal facilities.	2015
4	Audit and retro-commission municipal facilities.	2018

[5] Retro-commissioning is a systematic process to improve an existing building's energy performance and occupants comfort through a whole-building systems approach

Annual Energy Reduction Potential:
1,014 kWh

Cost to Town:
Low to High

Cost to Resident / Business Owner:
None

Savings to Resident / Business Owner:
None

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations, Energy Service Companies, Town Funds

Strategy 4.2: Evaluate cost-effectiveness of improving energy efficiency of traffic signals and public lighting.

In 2005, the Town used 72,612 kWh for traffic signals and public lighting spending $14,179 on traffic signals and outdoor lighting. In 2002, all traffic signals and pedestrian signals were retrofitted to LEDs. In 2010, the Town received an Energy Efficiency Community Block Grant award to replace high-pressure sodium streetlights with induction lamps in the Train Depot parking lot and on Taylor road from Sierra College to Del Oro Highschool. The Town will determine the feasibility and evaluate the cost-effectiveness of converting traffic signals and street lights to higher efficiency LED lighting. When funding becomes available, the Town will retrofit the remaining street lights. The Town will also encourage the school district to implement new operational procedures to turn off lights at Del Oro Football Stadium when not in use.

PG&E offers rebates for the replacement of streetlights with LEDs and full turnkey LED replacement services to local governments.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Evaluate cost-effectiveness of upgrading traffic signal lights to energy-efficient LEDs. Identify phasing and funding sources to offset conversion costs.	Near Term (3-5 years)	Public Works Department Town Manager's Office
2	Evaluate cost-effectiveness of upgrading street lights to energy efficient LEDS. Identify phasing and funding sources to offset costs.	Near Term (3-5 years)	Public Works Department Town Manager's Office
	PERFORMANCE INDICATOR	**TARGET**	
1	Traffic signal conversion.	___% conversion by 2020	
2	Street light upgrade.	___% upgrade by 2020	
3	Percentage of public lighting energy use reduced.	20% of energy use reduced by 2020	

Annual Energy Reduction Potential:
968 kWh

Cost to Town:
Low to High

Cost to Resident / Business Owner:
None

Savings to Resident / Business Owner:
None

Community Co-Benefits:
Reduced Energy Costs
Improved Air Quality

Potential Funding Sources:
Partnerships with Organizations, Pacific Gas & Electric, Town Funds

GOAL 5: INCREASE COMMUNITY WATER CONSERVATION AND EFFICIENCY TO REDUCE ASSOCIATED ENERGY USE

The state of California's official goal is to reduce per capita water use by 20% by 2020, which is only 6 years away! In a typical California home the major indoor water users are toilets (33%), showers (22%), faucets (18%), washing machines (14%), and leaks (12%). Dishwashers rank last – 1%.[6] Given that indoor water is delivered to a few, readily identifiable appliances, it is easy to target those with the greatest water conservation potential. Since it requires significant energy to source, treat and deliver water to community members; water conservation measures also have the effect of reducing the amount of energy that the City needs to provide water.

Strategy 5.1: Encourage residents and businesses to conserve water used indoors.

The measures below focus on those most readily implementable in light of existing rebate/retrofit programs. Based on the 2013 study referenced in the footnote below, use of more water efficient toilets, showers, faucets, washing machines and leak detection could reduce water usage by 15 gallons per capita per day (GPCD), a 25% reduction from typical daily residential water usage of 62 GPCD.

The Town will continue to promote the Placer County Water Agency's (PCWA) existing rebate and incentive programs to encourage Loomis residents and businesses to voluntarily reduce their water usage. The Town will also work with PCWA and PG&E to explore the feasibility of implementing new water efficiency programs. Programs could include a toilet swap event, or free low-flow showerhead giveaways.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Work with PCWA to expand existing water efficiency programs in Loomis.	Short Term (1-2 years)	Town Manager's Office
2	Explore with PCWA and PG&E the feasibility of implementing new programs.	Near Term (3-5 years)	Town Manager's Office
3	Work with PCWA to redesign the water bill format to encourage water conservation in residential and commercial uses.	Near Term (3-5 years)	Town Manager's Office
	PERFORMANCE INDICATOR	**TARGET**	
1	Percentage of households and businesses that voluntarily reduce indoor water use by 20% or more.	100% of households by 2020[7]	

Annual Energy Reduction Potential:
1,950 kWh

Cost to Town:
Low

Cost to Resident / Business Owner:
Low

Savings to Resident / Business Owner:
Low

Community Co-Benefits:
Reduced Water Use, Reduced Wastewater Costs, Reduced Energy Costs

Potential Funding Sources:
Partnerships with PCWA and other Organizations, Town Funds

[6] California Water Plan Update, Chapter 3. Urban Water Use Efficiency. 2013. http://www.water.ca.gov/calendar/materials/vol3_urbanwue_apr_release_16033.pdf

[7] Urban and agricultural water suppliers who do not meet the 20% reduction required by SX7-7 (enacted in 2009) will not be eligible for state water grants or loans.

Strategy 5.2: Encourage residents and businesses to conserve water used outdoors.

Significant water savings can be achieved in the outdoor environment through a few readily implementable programs. Placer County Water Agency (PCWA) offers Water Wise House calls where trained water efficiency specialists will on request visit homes; review indoor and outdoor water needs, make water-efficiency recommendations and provide, and by request, install certain water saving devices. PCWA also offers Water Wise business calls where trained technicians visit commercial sites; check for leaks, conduct outdoor irrigation check-ups and provide watering schedules. PCWA also offers rebates for water-efficiency measures (rebates are currently suspended until 2015 due to the depletion of funds).

The Town will work with PCWA to promote the use of the Water Wise House and Business Call programs and to encourage building owners to take advantage of water-efficiency rebates in Loomis. The Town will encourage or require new construction to include California Green Building Code's (CalGreen) voluntary water-efficiency measures. Expedited permit review for projects meeting the voluntary CalGreen water-efficiency measures will be examined for feasibility. Additionally, the Town will install water-efficient landscaping in areas managed by the Town to serve as public demonstration areas.

	IMPLEMENTATION ACTION	TIME TABLE	RESPONSIBILITY
1	Work with PCWA to promote Water Wise programs and water efficiency rebates.	Short Term (1-2 years)	Planning Department Town Manager's Office
2	Encourage voluntary compliance with CalGreen water efficiency measures by distributing information detailing the measures to builders, contractors and realtors.	Short Term (1-2 years)	Planning and Building Departments
3	Evaluate the feasibility of offering incentives for or requiring the voluntary water efficiency measures in CalGreen.	Near Term (3-5 years)	Planning & Building Departments
4	Install a demonstration zero-water landscape as a teaching tool for reducing outdoor water use.	Near Term (3-5 years)	Planning & Public Works Departments
	PERFORMANCE INDICATOR	**TARGET**	
1	Percentage of households and businesses that voluntarily reduce indoor water use by 20% or more.	100% of households by 2020	

Annual Energy Reduction Potential:
1,721 kWh

Cost to Town:
Low to High

Cost to Resident / Business Owner:
Low

Savings to Resident / Business Owner:
Low

Community Co-Benefits:
Reduced Water Use, Reduced Wastewater Costs, Reduced Energy Costs

Potential Funding Sources:
Partnerships with PCWA and other Organizations, Town Funds